Spectral Efficiency Evaluation for Non-Orthogonal Multiple Access in Rayleigh Fading

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Abstract— **This paper presents original analysis on the downlink spectral efficiency of non-orthogonal multiple access (NOMA) in Rayleigh fading environment. According to our accurate evaluation technique, a closed-form expression of NOMA spectral efficiency is proposed. With the closed form, the exact average of NOMA spectral efficiency can be achieved at different system parameters. Moreover, this closed form can be used to evaluate other orthogonal multiple access (OMA) techniques such as orthogonal frequency division multiple access (OFDMA).**

Keyword— **non orthogonal multiple access, downlink, spectral efficiency, future radio access, Rayleigh fading**

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